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INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)



Applicant's or agent's file reference P167	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP 03/08166	International filing date (day/month/year) 22.07.2003	Priority date (day/month/year) 24.07.2002
International Patent Classification (IPC) or both national classification and IPC D21C5/02		
Applicant DOW CORNING CORPORATION et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 20.02.2004	Date of completion of this report 03.12.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Naeslund, P Telephone No. +49 89 2399-8614 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP 03/08166

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-13 as originally filed

Claims, Numbers

1-19, 20 (part) as originally filed

20 (part), 21-27 filed with telefax on 10.09.2004

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY
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International application No. **PCT/EP 03/08166**

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-27
	No: Claims	NONE
Inventive step (IS)	Yes: Claims	1-27
	No: Claims	NONE
Industrial applicability (IA)	Yes: Claims	1-27
	No: Claims	NONE

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP 03/08166

Re Item V

*Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement*

D1: US-A-5 624 569

D2: EP-A-0 745 648

1. None of the documents cited in the international search report discloses all features of independent claim 1. The subject-matter of this claim is therefore novel and the provisions of Art. 33(2) PCT fulfilled. The dependent claims refer to preferred embodiments and should therefore also meet the requirements of Art. 33(2) PCT.
2. The present invention relates to a method for deinking printed paper, comprising pulping, adding a deinking additive and flotation. The deinking additive for use in the present invention comprises an organo-modified siloxane as recited in claim 1. This results in an improved removal of the ink-particles in the flotation step, giving brighter pulp under neutral conditions, compared to the state of the art. A method as claimed is not suggested by documents D1 or D2, neither taken alone nor in combination. The provisions of Art. 33(3) PCT would hence appear fulfilled.
3. The dependent claims 2-27 refer to preferred embodiments and should therefore also meet the requirements of Art. 33(2) and Art. 33(3) PCT.
4. For the assessment of the present claims on the question whether they are industrially applicable, no particular reasoning would appear necessary to give. The industrial application would appear to be evident (Art. 33(4) PCT).

further comprises a fatty acid which is a saturated or unsaturated monobasic aliphatic carboxylic acid.

21. A method according to claim 20 wherein the carboxylic acid is selected from lauric, myristic, palmitic, stearic, arachidic, behenic, lignoceric, palmitolic, oleic, linoleic, linolenic, and arachidonic acids.

22. A method according to any preceding claim wherein the additive is an emulsion.

23. A method according to claim 22 wherein the additive is a gum based self-emulsifying siloxane.

24. A method according to any preceding claim wherein the additive is added to the paper in an amount within the range 0.1 to 1 wt% of the paper.

25. A method according to claim 24 wherein the additive is added to the paper in an amount within the range 0.1 to 0.5 wt% of the paper.

26. A method according to any preceding claim which is performed at substantially neutral pH.

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27. A method according to any preceding claim wherein the additive is added to the paper before, during or after pulping.